

ANNOTATED LIST OF FUNGI ON VERBENACEOUS HOSTS FROM THE  
"MYCOLOGIA INDEX"↓

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The recent appearance of this useful index offers easy access to the literature covered in the first 58 volumes of MYCOLOGIA, dating from 1909 through 1966. The following listings include all mention of the Verbenaceae (including the now segregated family, Avicenniaceae). On the left hand margin the volume numbers, page numbers, and year of publication are given for each reference. The genera are listed in alphabetic sequence.

AEGIPHILA

52: 689-690 M. J. Thirumalachar in "Critical Notes on Some  
1960 Plant Rusts III" mentions a rust on Aegiphila sp. in Ecuador, named by Arthur in 1918 as a Cleptomyces. He reduces this generic name to synonymy under the earlier (1899) name, Stereostratum P. Magn., and identifies the species in question as S. lagerhamianus (Diet.) Thirumalachar, comb. nov. The host could be any one of 19 species and varieties of Aegiphila known from Ecuador.

AVICENNIA

12: 318 C. E. Chardon in "A List of the Pyrenomycetes of  
1920 Porto Rico Collected by H. H. Whetzel and E. W. Olive" mentions Meliola sepulta Pat. on Avicennia nitida Jacq. [Pina 612]. This host name, however, is now rejected in favor of the earlier A. germinans (L.) L.

17: 139 R. A. Toro in "New and Noteworthy Porto Rican Pyre-  
1925 nomycetes" separates from the genus Meliola those species devoid of setae and refers them to the genus Irene. He lists Irene sepulta (Pat.) Toro, comb. nov., on Avicennia nitida Jacq., deposited in the herbarium of the Insular Experiment Station [Toro 333]. Refer to the preceding item for the correct name of the host.

49: 489 S. P. Meyers in "Taxonomy of Marine Pyrenomycetes"  
1957 lists Metasphaeria australiensis Cribb & Cribb on A. marina var. resinifera (Forst.) Bakh. from Redcliff, Australia.

53: 582 W. B. Cooke in "The Genus Schizophyllum" lists S.  
1961 commune (Fr.) Fr. on a long list of woody and herbaceous plants without locality, including Avicennia sp.

BOUCHEA

52: 523-524 A. G. Kevorkian in a note entitled "Elsinöe on

Bouchea prismatica (L.) Kuntze in Cuba" recapitulates his previous report in PHYTOPATHOLOGIA 43: 406 (1960) of spot anthracnose disease and its effects on the stems, leaves & petioles of B. prismatica in Cienfuegos, Cuba, and proposes the name Elsinöe boucheae Kevorkian, sp. nov., with a validating description.

53: 437-438  
1961

The same author here publishes illustrations of Elsinöe boucheae on Bouchea prismatica (L.) Kuntze.

#### CALLICARPA

16: 154  
1924

J. Dearness in "New and Noteworthy Fungi III" lists Meliola cookeana Speg. in the Hypodermataceae on living leaves of Callicarpa americana L. The specimen was collected in 1923 by W. L. Nuttall. The asci are mostly 2-spored, but some are 4-spored with each sporidium showing a distinct pair of asci pairs.

16: 175  
1924

In a continuation of the same paper Dearness describes the hypomycete, Atractilina callicarpae Dearn. & Barth., sp. nov., on Callicarpa americana L. from Miami, Florida.

34: 561  
1942

W. W. Ray in "Notes on Oklahoma Cercosporae II" lists Cercospora callicarpae Cooke on Callicarpa americana L., the specimen deposited in the herbarium of the Oklahoma A. & M. University.

42: 793  
1950

G. B. Cummins in "Uredinales of Continental China Collected by S. Y. Cheo I" reports the not previously recorded Kuehneola callicarpae Syd. on Callicarpa sp. from Kwangsi, San Kiang Hsien, Sept. 1933 [Cheo 2766]. The host could be any one of 23 species and varieties of Callicarpa known from that province.

45: 110  
1953

M. T. Cook in "Species of Synchytrium in Louisiana VIII" describes S. callicarpae Cook, sp. nov., on Callicarpa americana L. from Baton Rouge. He states that it makes numerous, small, thick-walled, green galls which project from both sides of the leaves, illustrating these in cross-section in fig. 34-36 on page 111.

32: 373  
1940

G. B. Cummins in "Uredinales of New Guinea" lists Uredo callicarpae Petch on Callicarpa pedunculata R. Br. from the collections of M. S. Clemens at Wareo [nos. 1368, 1452, & 1453] and at Yunzaing [3264a & s.n.]. The fungus has epiphyllous, subcuticular pycnia encircled by paraphysate, similar, uredinoid aecia. Actually, the host specimens were collected by both members of the Clemens missionary family working together; the identification of most of the numbers has been checked by H. N. Moldenke.

42: 230  
1950

M. J. Thirumalachar in "Some Noteworthy Rusts III" lists his collection of Uredo callicarpae Petch on the leaves of Callicarpa lanata L. from Kemmangundi,

Mysore, India. The host plant is now more correctly called C. tomentosa (L.) Murr.

### CITHAREXYLUM

32: 400  
1940

F. J. Seaver and J. M. Waterston in "Contributions to the Mycoflora of Bermuda I" introduce to the literature Ascospora citharexyli Seav. & Waterston, sp. nov., found on dead leaves of Citharexylum spinosum L. It was collected by the second author at Somerset in 1938 [no. 212] and is a member of the Sphaerales whose erumpent black perithecia are thickly scattered over both surfaces of the host's leaves.

34: 521  
1942

The same authors in part III of their paper mention the pyrenomycete Penzigia bermudensis which J. H. Miller collected a second time as an abundant growth on dead twigs of C. spinosum L. in 1940 [no. 371].

34: 523  
1942

The same authors in the same part III mention the basidiomycete Auricularia polytricha (Mont.) Sacc. as first identified by E. M. Wakefield on an old stump of fiddlewood, C. spinosum L.

19: 73  
1927

R. A. Toro in "Fungi of Santo Domingo I" gives the initial report of Irene longipoda (Gaill.) Toro on Citharexylum fruticosum L. from La Vega [no. 211] and from Santiago [no. 281] in 1926. Today we know this area as the Dominican Republic.

37: 710  
1945

H. H. Whetzel in "A Synopsis of the Genera and Species of the Sclerotiniaceae, a Family of Stromatic Inoperculate Discomycetes" includes Lambertella jasmini Seav. & Whetzel in the generic host index as occurring on Citharexylum without indicating any particular species or locality of collection.

50: 691  
1958

R. T. Moore in "Deuteromycetes I: The Sporidesmium Complex" proposes the new name Piricauda paraguayense (Speg.) Moore, comb. nov., cites material examined, including a Bubak collection from Brazil on "Citharexylon" [Ule 948], and illustrates it in fig. 1 & 3 on p. 683 and in fig. 14 on p. 690. The host's generic name is now written Citharexylum, which is the original spelling, and there are 18 species and varieties known from Brazil.

### DURANTA

50: 691  
1958

In the above-mentioned paper by R. T. Moore the same fungus, Piricauda paraguayense (Speg.) Moore, is listed on the basis of a Patouillard collection from the Pululahua Crater in Ecuador on Duranta leaves. This collection is actually the type of Sporidesmium durantae Pat., but this name is here reduced to synonymy.

- 36: 434-435  
1944 C. Garcés Orejuela in "New or Heretofore Unreported Species of the Higher Ascomycetes from Colombia and Venezuela" transfers Irenopsis pittieri Toro to Irenina pittieri (Toro) Garcés, comb. nov., because newer collections showed no perithecial setae. It is reported on Duranta repens L. from Miranda, Venezuela [M. F. Barrus & A. S. Müller 3664], and from Boyacá, Colombia [R. Obregón 1180].
- 20: 219  
1928 F. J. Seaver in "Studies in Tropical Ascomycetes V -- Species of Phyllachora" describes Phyllachora fuscarpa Seav. on D. repens L. from the Bahamas and Puerto Rico. Plate 23, fig. 3, shows a spot-infected leaf and a drawing of an enlarged 8-celled ovoid ascus.

LANTANA

24: 63  
1932

H. S. Jackson in "The Rusts of South America Based on the Holway Collection VI" lists Aecidium lantanae Mayor on Lantana lilacena Desf. from Petropolis in Rio de Janeiro [Holway 1268] and from Belo Horizonte in Minas Gerais [no. 1353], Brazil, on L. rugulosa H.B.K. from Cuenca in Azuay [no. 985] and on Lantana sp. from Quito in Pichincha [no. 947], Ecuador. He mentions that this fungus was reported previously only from Colombia, Nicaragua and Panama. He suggests that this rust may actually not be distinct from A. verbenae Speg. It should be noted that the "Lantana lilacena" referred to above is a misspelling for L. lilacina Desf., a name now placed in synonymy under L. fucata Lindl. The unidentified Lantana from Ecuador could be any one of 5 species of the genus known from Pichincha.

25: 452  
1933

F. D. Kern, H. W. Thurston Jr. & H. H. Whetzel in "Annotated Index of the Rusts of Colombia" list Aecidium lantanae Mayor on "L. hispida H.B.K." [Mayor 213], noting that they are following the classification mentioned in the Jackson paper referred to above even though Arthur has combined the two taxa in NORTH AMERICAN FLORA 7: 635. 1924. Actually, the true L. hispida is not known to grow in Colombia, being confined to Central America. The host could be any one of 25 other species and varieties of the genus known from Colombia.

56: 886  
1964

L. S. Olive in "A New Member of the Mycetozoa" reports Cavostelium apophysatum Olive, sp. nov., as growing in the amoebal form in bacterial cultures and as isolated from mature or dead plant parts including old ears and tassels of corn, glumaceous inflorescences, legume pods, capsules, cotton bolls, dead flowers and old fleshy fruits of Lantana, etc., in



tropical and warm temperate regions of much of the world. A new family, the Cavosteliaceae, is proposed here for this genus because of its several distinctive features.

23: 375  
1931

W. G. Solheim & F. L. Stevens in "Cercospora Studies II -- Some Tropical Cercosporae" describe Cercospora guianensis Stev. & Solh., sp. nov., as found on leaves of Lantana sp. from Rockstone, British Guiana [no. 253], the type being deposited in the herbarium of the University of Illinois. The conidia are illustrated by them on p. 374. Thirteen species and varieties of the host genus are known from what is now the republic of Guyana.

35: 89  
1943

J. H. Miller & M. G. Burton in "Studies in Some Venezuelan Ascomycetes Collected by C. E. Chardon and A. S. Muller" have set up Epiphyma nervisequens (Chardon) Miller & Burton, comb. nov., as distinct generically from Dimeriellina nervisequens Chardon because of its paraphysoids instead of paraphyses and its non-fascicled asci. This fungus is a parasite on the leaves of Lantana camara L. in Venezuela. Fig. 7 on p. 92 shows a longitudinal section of the type [Chardon 2611].

37: 341  
1945

F. J. Seaver in "Photographs and Descriptions of Cup-Fungi XXXIX - The Genus Godronia and its Allies" proposes the name Godronia lantanae (Cash) Seav., comb. nov., for Scleroderris lantanae Cash. The fungus has been found on fallen branches of Lantana camara L. and is known thus far only from the type locality, the Kaluaaha Valley, Molokai, Hawaii. It is illustrated in MYCOLOGIA 30: 99, fig. 4. It should be noted that the true L. camara L. is not known from Molokai; the host is probably L. camara var. aculeata (L.) Moldenke, the only representative of the genus known from that island.

19: 74  
1927

R. A. Toro in "Fungi of Santo Domingo I" lists Meliola ambigua Pat. & Gaill., a member of the Perisporiaceae, on Lantana trifolia L. from Bajabonica [no. 264] and from Santiago [no. 263] in what we now know as the Dominican Republic.

36: 436  
1944

C. Garcés Orejuela in "New or Heretofore Unreported Species of the Higher Ascomycetes from Colombia and Venezuela" reports Meliola lantanae Syd. on L. fucata Lindl., a new host, from Antioquia, Colombia, at Quebrada Iguaná [no. 1533] at 1700 meters altitude and at Robledo [no. 1841]. This is a rather common species of fungus, already reported from Colombia, where the type was collected.

15: 111  
1923

J. Vizioli in "Some Pyrenomycetes of Bermuda" lists Melomastia mastoidea (Fries) Schroet. as found on two

specimens of decorticated branches of Lantana involu-  
crata L. (?) [Paget s.n. & Whetzel 145].

32: 393-394  
1940

F. J. Seaver & J. M. Waterston in "Contributions to the Mycoflora of Bermuda I" discuss the interesting problem of Nectria lantanæ Seav., which seems to be endemic to the islands even though its host plant, which they identify as L. odorata L., was introduced into the Bermuda islands from the Bahamas prior to 1800. The fungus has not yet been found elsewhere, although its host is widely distributed in the West Indies, nor on other plant species. It is recognized grossly by the red dots or perithecia on fallen leaves that have been spotted abundantly in several sites in the Bermudas. It should be noted that the correct name for the host is now L. involucrata var. odorata (L.) Moldenke.

34: 516  
1942

These same two authors in part III of the above-mentioned work, reporting on their fourth visit, declare that parasitic species and those occurring on decaying plant materials tend to be constant in their appearance, citing, as an example, Nectria lantanæ Seav. on Lantana.

30: 103  
1938

E. K. Cash in "New Records of Hawaiian Discomycetes" lists Patellaria atrata (Hedw.) Fr. on the stems of Lantana sp. from Waiialua, Oahu, Hawaii [Stevens & Shear 574]. There are 4 species and varieties of the host genus known from Oahu.

21: 315  
1929

N. E. Stevens & C. L. Shear in "Botryosphaeria and Physalospora in the Hawaiian Islands" inform us that both of these genera are rare in those islands and that P. fusca was collected four times there on four different hosts, including L. aculeata L. Heretofore this fungus had been known only from a few collections in western Cuba. This expansion of its known range suggests that it may be generally distributed through the tropics, as its host now is. The correct name for the host is now L. camara var. aculeata (L.) Moldenke.

10: 121  
1918

J. C. Arthur in "Uredinales of Costa Rica Based on the Collections of W. D. Holway" lists Prospodium tuberculatum (Speg.) Arth. on Lantana camara L. from Cartago [Holway 277]. This rust species is known from the tropical parts of both North and South America. It is recorded again on p. 153 in the host index. The true L. camara is not known from Cartago, so it seems probable that the host here is the very similar L. glandulosissima Hayek.

18: 47  
1926

F. D. Kern and H. H. Whetzel in "Some New and Interesting Porto Rican Rusts" also report Prospodium tuberculatum (Speg.) Arth. on Lantana camara L. at Martin Peña [Seaver & Chardon 1369]. This constitutes the

first record of the fungus from Puerto Rico; it was previously known only from central Mexico, Costa Rica and Cuba.

24: 65  
1932

H. S. Jackson in "The Rusts of South America Based on the Holway Collections VI" reports Prosopodium tuberculatum (Speg.) Arth. on L. camara L. from La Paz, Bolivia [Holway 465], from Nor Yungas, Bolivia [no. 706] and from São Paulo, Brazil [nos. 1532 & 1688]. It is also reported from "L. mixta L." from São Paulo, Brazil [no. 1811]. According to H. N. Moldenke, the true L. camara L. is not known from the Bolivian areas referred to above and the host there is probably the related L. cujabensis Schau. or L. glutinosa Poepp. The name, L. mixta L., is a synonym of what is now known as L. camara var. mista (L.) L. H. Bailey, and Holway's nos. 1532 & 1811 have been so identified.

32: 295  
1940

H. W. Thurston Jr. in "The Rusts of Minas Geraes, Brazil, based on Collections of A. S. Müller" lists Prosopodium tuberculatum (Speg.) Arth. on L. camara var. aculeata (L.) Moldenke from Ita [Müller 361] and on L. camara L. from Viscosa [no. 742].

35: 438  
1943

F. D. Kern and H. W. Thurston Jr. in "Additions to the Uredinales of Venezuela II" include Prosopodium tuberculatum (Speg.) Arth. on Lantana achyranthifolia Desf. from Caracas [Whetzel & Müller 2864]. This is the only species of Prosopodium known to occur on Lantana. Cummins, in his monograph of this fungus genus in LLOYDIA 3: 15 (1940), lists the host species of Lantana, but does not include L. achyranthifolia.

7: 243-244  
1915

J. C. Arthur in "Uredinales of Porto Rico Based on Collections by F. L. Stevens" lists Puccinia lantanae Parl. on L. camara L. from Guanica [nos. 358 & 6607], from Lares [no. 4926] and from Guayanilla [nos. 5952 & 6603], and also on L. involucrata L. from Bogueron [no. 354], from Arecibo [no. 1781], from Quebradillos [no. 5017], from San German [no. 5763], from Mona Island [no. 6440] and without locality [no. 6823]. These collections were made in 1913. The author says that he has not personally seen this fungal species in Puerto Rico, but points out that it has been collected on other West Indian islands -- in Cuba on L. camara L., L. involucrata L., and L. trifolia L., in Jamaica on L. crocea Jacq. and L. stricta Sw., and on St. Thomas on L. aculeata L.

In this work L. odorata L. is given as a straight synonym of L. involucrata, but actually it is now kept separate as L. involucrata var. odorata (L.) Moldenke. Also, L. stricta Sw. is now known as L. angustifolia Mill., L. crocea Jacq. is now known as L. urticaefolia



Mill., and L. aculeata L. is more correctly called L. camara var. aculeata (L.) Moldenke.

52: 821  
1960

L. S. Olive in "Acrasiales of the West Indies" describes the orange Protostelium mycophaga L. S. Olive & Stoianovitch as probably the simplest of the cellular slime molds and one of the most common. In the Caribbean area it has been isolated from several different kinds of dead flowers and decaying fruits, including those of Lantana. It is recorded from Grenada, St. Lucia and Martinique.

9: 82  
1917

J. C. Arthur in "Uredinales of Porto Rico Based on Collections by H. H. Whetzel and E. W. Olive" lists Puccinia lantanae Farl. on Lantana involucrata L. from Yauco [no. 325]. The identification of the host has been verified by H. N. Moldenke.

10: 133  
1918

J. C. Arthur in "Uredinales of Costa Rica Based on Collections by E. W. D. Holway" lists Puccinia lantanae Farl., a short cycle rust common in the warmer parts of America, on three species of Lantana - L. camara L. from San José [nos. 303 & 352], L. hispida H.B.K. from San José [no. 244] and Cartago [no. 278], and Lantana sp. from Orotina [no. 338]. Lantana is also listed in the host index on p. 153.

The specimen from Orotina could be on any one of 9 species and varieties of Lantana known from the province of San José.

16: 11  
1924

F. J. Seaver in "The Fungous Flora of St. Thomas" records Puccinia lantanae Farl. for the first time on this island, growing on Lantana camara L. (?) from the vicinity of St. Peter. It was collected by Dr. J. N. Rose.

18: 137  
1926

F. J. Seaver in "Mycological Work in the Bermuda Islands" mentions Puccinia lantanae Farl. as common on the leaves of Lantana involucrata L. and as one of the first fungi collected there.

19: 288  
1927

W. R. Hunt in "Miscellaneous Collections of North American Rusts" includes his collection of Puccinia lantanae Farl. on L. involucrata L. in Bermuda in 1926.

20: 72  
1928

F. D. Kern in "Fungi of Santo Domingo II - Uredinales" reports Puccinia lantanae Farl. (syn. Micropuccinia, NORTH AMERICAN FLORA 7: 559) on L. involucrata L. from Barahona [M. F. Barrus 7] and also on Priva lappulacea (L.) Pers. from Bajabonico [no. 65], San Cristobal [no. 36] and Los Ranchos [Chardon 378].

24: 63-64  
1932

H. S. Jackson in "The Rusts of South America Based on the Holway Collections VI" lists Puccinia lantanae Farl. on Lantana brasiliensis Link from São Paulo, Brazil [no. 1667] and on L. trifolia L., also from São Paulo [no. 1483]. The host of the last-mentioned col-



lection has been verified by H. N. Moldenke.

This fungus was also reported on two other verbenaceous plants - Lippia rhodocnemis Mart. & Schau. and Lippia triflora L. The former record is based on a collection made by both of the Holways [no. 406] and the host was verified by H. N. Moldenke. The Lippia triflora given as the host for the second record appears to be a deplorable typographic error for Lantana trifolia L., into whose synonymy it must be inserted. The host plant in this case has also been verified by the above-mentioned monographer.

This very common microform has a wide distribution extending from Florida and Mexico throughout the West Indies and Central America to Argentina in South America. Mesospores often predominate in the sori, and this explains why the fungus was first mistaken for a species of Uromyces.

25: 471-472  
1933 F. D. Kern, H. W. Thurston Jr. and H. H. Whetzel in "Annotated Index of the Rusts of Colombia" list Puccinia lantanae Farl. on Lantana camara L. [Toro 180], on L. hispida H.B.K. [Mayor 212], on L. tiliifolia Cham. [Mayor 28] and on L. trifolia L. [Mayor 214a].

It should be pointed out here that L. hispida H.B.K. and L. tiliifolia Cham. are not known from Colombia. It is probable that the hosts will prove, on examination, to be L. armata Schau. and/or L. glandulosissima Hayek.

32: 300  
1940 H. W. Thurston Jr. in "The Rusts of Minas Geraes, Brazil, Based on the Collections of A. S. Müller" includes Puccinia lantanae Farl. on L. trifolia L. from Viscosa [no. 666]

30: 98  
1938 E. K. Cash in "New Records of Hawaiian Discomycetes" mentions Schizoxylon insigne (DeN.) Rehm. on stems of Lantana sp., a new host for this fungus species. It was found in the Manoa Valley, Oahu [Stevens & Shear 553]. Six species and varieties of the host genus are known from Oahu island.

30: 101  
1938 In the same paper Scleroderris lantanae Cash, sp. nov., is described, being illustrated in fig. 4 on the preceding page. It was found on a fallen branch of Lantana camara L. in the Kaluaaha Valley, Molokai [no. D3032]. The true L. camara, however, is not known from that island. The host was probably L. camara var. aculeata (L.) Moldenke.

7: 334  
1915 P. Garman in "Some Porto Rican Parasitic Fungi" describes Septoria lantanae Garman, sp. nov., from the leaves of Lantana camara L. [TYPE 221x]. This fungus species differs decidedly from S. verbenae in the character of the leaf spot, which lacks the white center.

LIPPIDIA

- 32: 170-171  
1940 B. H. Davis in "A New Cercospora on Lippia cardiostegia" describes a previously unidentified fungus from Kellerman's Guatemalan collections as Cercospora cardiostegiae Davis, sp. nov., from the host plant's leaves. In the specimen examined no definite leaf spots were formed. The upper surface is light brown. Fruiting is hypophyllous, effuse and presenting small darkened areas with conidiophores. The fungus species differs from C. lippiae, described by Ellis and Everhart, from L. nodiflora [= Phyla nodiflora (L.) Greene] in these traits. Type material is deposited in the herbaria of both Ohio State University and Cornell University. In Fig. 1 stroma, conidia and conidiophores are illustrated.
- 3: 12  
1911 F. D. Heald and F. A. Wolf in "New Species of Texas Fungi", as part of a plant disease survey of the San Antonio-Austin area, describe Cylindrosporium lippiae Heald & Wolf, sp. nov., from the leaves of what they refer to as Lippia ligustrina (Lag.) Britton from Llano [TYPE 1756]. The fungus produces 3 or 4 circular spots on each leaf, each spot with a gray center showing numerous conidial tufts inside and outside a narrow brown border edged with a tinge of yellow.  
The correct name for the host plant is Aloysia gratissima (Gill. & Hook.) Troncoso.
- 10: 151  
1918 J. C. Arthur in "Uredinales of Costa Rica Based on Collections of E. W. D. Holway" cites Prospodium lippiae (Speg.) Arth. on Lippia myriocephala Schl. & Cham. from the road to Volcán de Poas [no. 372 II & III] and also on Lippia sp. from San José [no. 364 II & III] and from San Ramón [no. 417 II]. The spores in this material are somewhat smaller and less strongly developed than usual. This is a common species in tropical America.  
The undetermined Lippia host from San José could be any of 5 species of this genus known from that province, while that from San Ramón could be any of 6 species.
- 24: 65  
1932 H. S. Jackson in "The Rusts of South America Based on the Holway Collections VI" cites this same Prospodium lippiae (Speg.) Arth. on Lippia hemisphaerica Jacq. from Guayaquil, Ecuador [no. 807] and on L. ligustrina (Lag.) Britton from Cochabamba, Bolivia [nos. 326 & 327]. Examination of the first host by H. N. Moldenke shows it to be L. americana f. pilosa Moldenke; the second is more properly called Aloysia gratissima (Gill. & Hook.) Troncoso
- 25: 449  
1933 F. D. Kern, H. W. Thurston Jr. and H. H. Whetzel in "Annotated Index of the Rusts of Colombia" re-study

some Baker specimens reported by Earle in 1899 and claim that "what was supposed to be Prosopodium appendiculata (Wint.) Arth. on some Bignoniaceae turns out to be Prosopodium von gunteni (Mayor) Kern & Whetzel on Lippia sp. Mayor in MEM. SOC. NEUCH. SCI. NAT. 5: 490. 1913 lists this as Puccinia von guteni on Lippia americana L. for his 368 and on Lippia sp. for Baker's 93.

"Through the kindness of Dr. Samuelsson, of Stockholm, we have had a part of the Baker collection for study. Dietel (BULL. TORREY CLUB 26: 632. 1899) studied this specimen. He thought it was on some Bignoniaceae and remarked that although the appendages on the teliospore pedicels were poorly developed or wanting he did not doubt its determination as Puccinia appendiculata. A note on the original says 'on a shrubby herb - one of the Myrsinaceae?'. Our examination of the rust shows that the teliospores have one whorl of appendages and that both teliospores and uredospores agree with Prosopodium von gunteni. A detailed study of the fragmentary specimen also shows that the veining, margin, and pubescence of the leaf are so nearly identical with those of Mayor's 368 that there seems no doubt about the possibility of its being a species of Lippia." Nine species and varieties of Lippia are known from Colombia.

10: 133-134  
1918

J. C. Arthur in "Uredinales of Costa Rica Based on Collections of E. W. D. Holway" describes Puccinia elatipes Arth. & Holw., sp. nov., on Lippia sp. growing on hills southwest of San José [no. 307 II & III]. The host specimen has been examined by H. N. Moldenke and proves to be Lippia costaricensis Moldenke. Arthur comments that the host resembles L. umbellata Cav., and this is true, but the latter species is known only from Mexico.

Arthur states further that the fungus species "is especially characterized by flattened urediniospores and by exceedingly large and inflated pedicels to the teliospores. The type was collected by Prof. Holway in Guatemala on Lippia myriocephala Schlecht. & Cham. along the road between Quezaltenango and Colomba in 1917 [no. 831 O, III]. The host genus is listed in the index on p. 151.

24: 64  
1932

H. S. Jackson in "The Rusts of South America Based on the Holway Collections - VI" lists Puccinia lantanae Farl. on Lippia rhodocnemis Mart. & Schau. from Rio de Janeiro, Brazil [no. 1006] and on L. triflora L. from Nor Yungas, Bolivia [no. 711]. H. N. Moldenke has examined both of these host plants and identifies the first as Lantana hypoleuca Briq. and the second as Lantana trifolia L.



This very common microform fungus has a wide distribution extending from Florida, Mexico, the West Indies, and Central America less commonly, through much of South America. Mesospores are often predominant in the sori and the species therefore often resembles one of Uromyces.

The author then goes on to describe Puccinia mariae Jackson, sp. nov., in honor of Mrs. Holway who did much collecting with her husband. It was found on Lippia sp. at Prata, São Paulo, Brazil [no. 1719]. Twenty species and varieties of the host genus are found in São Paulo state.

3: 289  
1911

F. D. Kern in "The Rusts of Guatemala II" lists Puccinia lippiae Speg. on Lippia myriocephala Schlecht. & Cham. (as determined by John Donnell Smith) from Laguna in Amatitlan, at an altitude of 1200 meters [no. 5209]. According to H. N. Moldenke, this host is not known from that province. The fungus was more probably collected on L. callicarpaefolia H.B.K., the only Lippia known from Amatitlan.

The teliospores are distinctive because of the whorls of branched appendages near the bases of the pedicels.

10: 134  
1918

J. C. Arthur in "Uredinales of Costa Rica Based on Collections of E. W. D. Holway" describes Puccinia permagna Arth. & Holw., sp. nov., on L. myriocephala Schlecht. & Cham. from San José [no. 404], deposited in the Farlow herbarium at Harvard University.

"The fungus was found only on fresh shoots coming up from stumps of the shrubs cut to make the trail. The growth was very luxuriant and the leaves much larger than on shoots of slower growth. Such preference seems to be common for rusts on shrubs and trees."

The fungus is similar to P. elatipes Arth. & Holw. on presumably the same host, except for the absence of uredinia, the numerous and darker pycnia, and the larger telial sori, spores, and pedicels.

The host is listed again in the index on p. 151. It should be pointed out that Lippia myriocephala is not known to occur in San José, but 4 other species of the genus do grow there.

PETITIA  
9: 62  
1917

J. C. Arthur in "Uredinales of Porto Rico Based on Collections of H. H. Whetzel and E. W. Olive" describes Olivea petitiae Arth., sp. nov., on Petitia domingensis Jacq. from mountainous Mariaco along the Rio Grande [no. 349]. The fungus has remarkable balls of paraphyses enclosing the urediniospores. Crushing these balls releases the colorless teliospores which are often already germinated.



7: 333  
1915

P. Garman in "Some Porto Rican Parasitic Fungi" describes Septoria petitiae Garman, sp. nov., on leaves of Petitia domingensis Jacq. from Cabo Rojo [nos. 6470 TYPE & 9756]. The fungus makes suborbicular spots 1--2 mm. in diameter with white centers and fuscous margins.

#### PRIVA

17: 9  
1925

F. J. Seaver in "The Fungous Flora of St. Croix" lists among the Phyllostictales a Cincinnatiobolus sp. reported by Ferdinandsen and Winge on Priva lappulacea (L.) Pers.

14: 18  
1922

J. C. Arthur in "Uredinales Collected by Fred J. Seaver in Trinidad" lists Puccinia lantanae Farl. on Priva lappulacea (L.) Pers. [nos. 2955, 2970, & 3397].

20: 72  
1928

F. D. Kern in "Fungi of Santo Domingo - II Uredinales" lists Puccinia lantanae Farl. on Priva lappulacea (L.) Pers. from Bajabonico [no. 65], from San Cristobal [no. 36] and from Los Ranchos [C. E. Chardon 378].

#### STACHYTARPHETA

24: 63  
1932

H. S. Jackson in "The Rusts of South America Based on the Holway Collections - VI" lists Endophyllum stachytarphetae (P. Henn.) Whetzel & Olive on S. dichotoma Vahl from the Reserva Florestal, São Paulo, Brazil [no. 803].

The author claims that the genus Endophyllum should be maintained as distinct from Aecidium, from which it is obviously developed, and that there is the possibility that both may exist even in the same region.

Stachytarpheta dichotoma Vahl is now regarded as a synonym of S. cayennensis (L. C. Rich.) Vahl.

16: 11  
1924

F. J. Seaver in "The Fungous Flora of St. Thomas" lists Puccinia urbaniana P. Henn. among the Uredinales on Stachytarpheta sp., a record first reported by Crown. Three species of the this genus are known from that island.

17: 260  
1925

H. Sydow in "Rusts of British Guiana and Trinidad" also lists Puccinia urbaniana P. Henn. on Stachytarpheta sp. from Tumatumari, British Guiana [now the Republic of Guyana] [no. 131]. Eight species and varieties of the host genus are know from that country.

#### TECTONA

23: 399  
1931

W. G. Solheim and F. L. Stevens in "Cercospora Studies II - Some Tropical Cercosporae" list Cercospora tectoniae Stev. on leaves of Tectona grandis L. f. from the type locality of the fungus, Honolulu, Oahu [no.

52]. Specimens are filed in the herbaria of the Hildebrand Gardens in Oahu and the University of Illinois. The fungus produces amphigenous, angular and at times confluent, vein-limited, reddish-brown spots on the leaves of the host.

40: 361  
1948

M. J. Thirumlachar and C. Chupp in "Notes on Some Cercosporae of India" list this same C. tectoniae Stev. on Tectona grandis L. f. from a Bangalore collection made by the first author.

VERBENA

28: 299  
1936

H. Brandriff in "The Development of the Ascocarp of Acrospermum compressum Tode" mentions that this, the type species of this dothidiaceous genus, is of common occurrence on a number of herbaceous plants in the United States and in Europe. Collections in the herbarium of the New York Botanical Garden include one on the stems of Verbena urticifolia L., the host verified by H. N. Moldenke.

24: 62  
1932

H. S. Jackson in "The Rusts of South America Based on the Holway Collections - VI" lists Aecidium verbenae Speg. on Verbena litoralis H.B.K. from Petropolis [no. 1272], Therezopolis [no. 1180] and Friburgo [no. 1454], all in Rio de Janeiro, Brazil.

It is also listed on Verbena sp. from Barbacena, Minas Gerais [no. 1380], and from São Paulo [no. 1479], Brazil.

Spegazzini considered his Aecidium verbenae to be the aecial stage of Puccinia elongata Speg. "The latter, however, seems from the description to be a short cycled form."

It should be noted here that H. N. Moldenke has examined the host specimens for some of the above-mentioned records. He finds that Holway's numbers 1180 and 1454 are actually Verbena bonariensis L., while no. 1272 is V. brasiliensis Vell.

8: 147-148  
1916

P. C. Standley in "Fungi of New Mexico" mentions Erysiphe cichoracearum DC. as reported by T. D. A. Cockerell on Verbena macdougallii Heller from Pecos [no. 5194].

10: 250  
1918

C. E. Fairman in "New or Noteworthy Ascomycetes and Lower Fungi from New Mexico" includes Ophiobolus collapsus Sacc. & Ellis on old stems of V. macdougallii Heller [Standley 13644].

21: 329  
1929

J. Dearness in "New and Noteworthy Fungi VI" lists Ophiotrichum verbenae Dearn. & Barth, sp. nov., one of the hypomycetes, on living leaves of Verbena urticifolia L. from Birmingham, Alabama [E. Bartholomeo 8951 & Dearness 5651].

Grayish brown spots are visible only on the lower surface of the leaves. These spots are 0.5 cm. wide and are bounded by the strong veinlets of the leaf.

The host specimens should be re-examined because Verbena urticifolia L. is not otherwise known from Jefferson County, Alabama (the county of Birmingham), although it is known from Baldwin and DeKalb Counties. Eighteen species of Verbena are known from Alabama.

9: 120  
1917

B. C. Tharp in "Texas Parasitic Fungi - New Species and Amended Descriptions" describes Phyllosticta verbenicola Tharp, sp. nov., on living leaves of Verbena bipinnatifida Nutt. from Austin, based on an unnumbered specimen collected by himself and I. M. Lewis.

The spots are marginal or central, gray with purplish border, 2--6 mm. across.

11: 71  
1919

P. J. Anderson in "Index to American Species of Phyllosticta" notes P. verbenicola Tharp among 324 records, growing on Verbena bipinnatifida Nutt., but claims that "The specific name is untenable because [it has been] previously used, cf. P. verbenicola Martin, J. M. 2: 26. 1886."

Verbena is mentioned again in the host index on p. 78.

32: 298  
1940

H. W. Thurston Jr. in "The Rusts of Minas Geraes, Brazil, Based on Collections of A. S. Müller" lists Puccinia elongata Speg. on "Verbena brasiliense" Vell. at Vicosa [nos. 1 & 944 I & II], noting that it and Aecidium verbenae are stages of the same fungus as Müller's no. 944 specimen shows. It bears abundant compact telia arising within and around the aecia. The aecial stage has been most frequently collected. It may be a repeating stage. Pycnia are lacking. Herein Thurston supports Spegazzini's earlier hypothesis mentioned above.

13: 238  
1921

J. C. Arthur in "Memoranda and Index of Cultures of Uredineae 1899 - 1917" records among the heteroecious species grown successfully on alternate host cultures at the Purdue University Experiment Station Puccinia verbenicola (E. & K.) Arth., with P. vilfae Arth. & Holw. given as a synonym, on Verbena stricta Vent. and on V. urticifolia L. as aecial hosts and on Sporobolus longifolius Wood [now known as S. asper (Michx.) Kunth] as the telial host during the years 1899, 1902, 1904 and 1905.

30: 100  
1938

E. K. Cash in "New Records of Hawaiian Discomycetes" lists Stictis stellata var. philippensis Rehm. among the Stictidaceae on stems of Verbena bonariensis L. from Kokee [Shear & Stevens 543] as the first record of this fungal genus on Verbena. The fungus has the same thickness and septation as found in the Philip-

pine variety elsewhere.

VITEX

- 32: 349  
1940 C. J. Alexopoulos in "Some Fungi from Greece" lists Phoma viticis Celotti, a member of the Sphaerioidaceae, on leaves of Vitex agnus-castus L. from Daphni, Attica.
- 32: 199-200  
1940 C. E. Chardon, J. H. Miller and A. S. Müller in "Ascomycetes from the State of Minas Geraes, Brazil" list Phyllachora toruma Speg. on Vitex cymosa Bert. from Vicosa [Müller 166] and from Maria da Fa [Müller 225].
- 53: 584  
1961 W. B. Cooke in "The Genus Schizophyllum" lists S. commune (Fr.) Fr. as being found throughout the treed area of the world on hundreds of genera and species, including Vitex lucens T. Kirk.
- 14: 21  
1922 J. C. Arthur in "Uredinales Collected by Fred J. Seaver in Trinidad" lists Uredo viticis Juel on Vitex sp. [no. 3293]. Four species and varieties of this host genus are found in Trinidad.
- 52: 902  
1960 A. E. Liberta in "A Taxonomic Analysis of Section Athele of the Genus Corticium I - Genus Xenasma" proposes Xenasma vermiferum (Bourd.) Liberta, comb. nov., and reports it from the stems and decayed wood or bark of Vitex lucens T. Kirk among others. Penline sketches of a cystidium, basidia and spores are found on Fig. 11 on p. 901.
- Specimens were examined from Hawaii [D. P. Rogers 1961], from California [H. E. Parks 4028] and from New Zealand [S. D. Baker PDD13737].
- The California and Hawaiian specimens must have been taken from cultivated specimens of the host, since V. lucens T. Kirk is endemic to North Island, New Zealand.

1. "MYCOLOGIA INDEX, VOLUMES 1--58, 1909--1966" edited by Clark T. Rogerson, New York Botanical Garden Publishers, New York, 1968.